

400V HV MPPT SOLAR REGULATOR

The Microcare Maximum Power Point Tracker (MPPT) Regulator is designed to interface between the solar panel and the DC bus. The tracker will always find the optimum power point of the solar panel system to ensure that maximum power is extracted from the solar panel and put into the batteries.

Using this system up to 30% more power can be extracted from the solar panel than using shunt or series PWM regulators. The MPPT charge controller will deliver the highest charge current possible for a given set of operating conditions.

The ability to step down a high voltage solar array to a low voltage battery can save you money by reducing the size of the wire required and making the installation simpler and faster. The 400V Mini Grid HV MPPT is designed as part of the Microcare Modular Mini-Grid Solution for both single and three-phase applications.



- Input panel voltage 400V Max
- 48V Battery pack
- Input and output protection
- Electronic current limiting.
- 4x4 Line LCD Display:
 1. Battery Voltage,
 2. Charge Mode (Equalize, Boost and Float) showing Charge Current,
 3. Panel Voltage and
 4. Output Power from the Panels
- Data Logger: 24hr Average and 63 day logger
- Programmable features
- Peak efficiency greater than 96%
- Advanced constant Power Point Tracking algorithm

MODEL	10.5kW	5.2kW
OUTPUT CURRENT RATING	Available in 400V only	
NOMINAL BATTERY VOLTAGE	48V Battery pack	
PV INPUT VOLTAGE	Open Circuit Absolute Maximum 400V _{DC}	
CHARGE ALGORITHM	5-stage 3-level (Equalize/Boost/Float)	
POWER CONVERSION	DC/DC Switch Mode	
VOLTAGE STEP DOWN	Can charge a lower voltage battery from a higher voltage PV array	
OPERATING TEMP RANGE	0 to 62°C	
INPUT PROTECTION	4 x 16A DC Circuit Breakers	2 x 16A DC Circuit Breakers
OUTPUT CONNECTION	4 x 63A 6kVA Circuit Breakers	2 x 63A 6kVA Circuit Breakers
OUTPUT AMPS	4 x 50A (Total 200A per module)	2 x 50A (Total 100A per module)
NO. OF MPPTS	4 MPPTs per Module	2 MPPTs per Module
NO. OF STRING INPUTS	4 per module (MPPT per string)	2 per module (MPPT per string)
MAX INPUT PER STRING	2.8kW	
MAX TOTAL INPUT PER MODULE	11.2kW	5.6kW
Dimension (W x D x H)	300 x 280 x 700mm	260 x 195 x 560mm

